To this must, however, be added the completion of the Settlement of Murbád and the Demarcation and Settlement of Sháhápur. Mr. Orr, however, adds: "I have good hopes that the whole work of the district will be complete by the end of 1896."

15. In the Mándvi Táluka of Surat the sanctioned demarcation has been found to be so faulty that it has been ordered in Government Resolution No. 6702 of 2nd September 1895, that it be revised. It is confidently expected, however, that the work will be completed during the coming season.

16. In the rest of Surat and in the Panch Mahál settlement is complete.

(iii).—DEMARCATION.

17. The following statement shows the clearance of boundary lines and the erection of forest boundary marks effected during the year :—

No.	Division.	Length of Boundary demarcated.	Number of Cairns erected.		Amount spent.	Rate per mile.	Remarks.
			Large.	Small.			
					Rs. a. p.	Rs.	
1	East Thána ...	17	...	290	195 13 9	...	
2	West Thána ...	34½	114	4	68 3 0	..	
3	Surat ...	30½	210	187	811 7 3	...	
4	Panch Mahál ...	23	...	55	2,282 1 6	...	
	Total ...	105	324	536	3,357 9 6	11½	
	Total of 1893-94 ...	139½	752	313	3,730 0 0	26¾	

(iv).—SURVEYS.

18. The following statement furnished by the Superintendent of Forest Survey Work and its cost during *survey year* 1894-95 in this Circle :—

Description of Survey.	Scale.	District.	Area in Square miles.	Total Cost for Survey year.	Cost rate. Square mile.	Remarks.
				Rs. a. p.	Rs. a. p.	
Triangulation ...	8″ mile.	West Thána.	205	970 4 5	6 11 3	Máhím Táluka.
Traversing ...	...	.....	200	970 4 5	4 13 7	Máhím Táluka.
Detail Survey ...	...	East Thána...	5,557	9,462 1 9	170 7 4	Váda Táluka.
Total ...	...	.....	...	11,402 10 7	...	

19. The actual cost debited to the Northern Circle during the *forest year* was Rs. 11,219-2-7.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

I.—REGULATION AND MANAGEMENT.

(*a*).—Working Plans and their Control.

20. The Working Plans Division was in charge of Mr. G. P. Millett, Deputy Conservator of Forests, 4th Grade, during practically the whole year.

21. During November, December, and part of January Mr. Millett was employed in inspecting in detail the reserves in the Godhra Range of the Panch Mahâls division. As a result of this inspection a draft scheme of working was drawn up by him which was submitted to the Divisional Forest Officer and Revenue officers; on receipt of any criticisms or suggestions they may have to offer, the details of the Working Plan will be elaborated and the scheme submitted to Government for sanction.

22. The Working Plan of the Bhiwndi Range, Thâna Division, was formally sanctioned by Government and a similar Working Plan (comprising the Váda, Bassein and Máhim Ranges) was prepared by Mr. Millett and is under consideration by the Divisional Forest officers and Revenue officers.

23. On completion of the inspection of the Godhra forests mentioned above, Mr. Millett moved to Thâna and was engaged in supervising and pushing on the work of marking the Thâna coupes on the ground. Up to the commencement of the year under report 150 coupes had been marked out in advance (*i. e.*, in advance of the actual coupes of the year) to which have been added 255 during the past year. This, though so far satisfactory, is still a very slow rate when it is remembered that nearly 9,000 such coupes remain to be demarcated on the ground. I am therefore glad to be able to record that Colonel Hobday, the Superintendent, Forest Survey, has most courteously consented to have this work done *pari passu* with the survey, so that it may confidently be hoped that the work will now shortly be completed.

24. The general scheme of working of the Thâna forests was, as Government is aware, adopted rather hurriedy and without the usual preliminary stock-taking and calculation of rate of growth, &c. For these data the Forest officers responsible for the scheme had to rely on the personal working knowledge of the forests, and their contents of themselves and other officers who had been in charge. It is most gratifying therefore to see how the selection of a rotation of 40 years is supported by the diagram published at page 71 in last year's administration report of the Southern Circle. Moreover, the result of the experiments in coppice growth in the Kolâba forests (for these forests are very similar in their contents and growth to the majority of the Thâna forests) seems to show that the working of these Thâna forests for large timber, as was advocated, I believe, by the Inspector General of Forests when he visited Bombay, would have been impossible without a preparatory treatment very much on the lines of that now being followed.

25. The following statement shows the extent to which the Thâna Working Plans have been marked out on the ground:—

Name of Range.	Number of Blocks.	Total Number of Coupes.	Number of Coupes marked out.	Number of Coupes exploited.	Number of Coupes to be worked in 1895-96.	Number of Coupes marked for future exploitation.	Number of Blocks in which Coupes for future exploitation are laid out.	Number of Coupes yet to be marked out.	Remarks.
East Thâna Division.									
Bhiwndi	20	800	243	158	20	65	20	557	
Kalyán	16	640	135	119	16	...	...	505	
Murbád	20	800	119	104	15	...	...	681	
Sháhápur and Khardi ...	53	2,120	308	259	49	...	...	1,812	
Mokháda	12	480	71	60	11	...	...	409	
Váda	34	1,360	249	180	34	35	9	1,111	
West Thâna Division.									
Sálsette	11	440	74	63	11	...	...	366	
Bassein	23	920	283	189	23	71	16	637	
Máhim	35	1,400	523	254	35	234	34	877	
Dahánu	42	1,680	337	295	42	...	...	1,343	
Umbargaon	19	760	143	124	19	...	...	617	
Total ...	285	11,400	2,485	1,805	275	405	79	8,915	

26. The following statement shows the employment of time of the Working Plan surveyors:—

Percentage of time employed in	1893-94.	1894-95.
Working days (field and office work) ...	64	61
Sundays, holidays and leave ...	23	21·4
Travelling	10	10·1
Illness and delays	3	7·5

27. The details of work done in laying out the coupes for exploitation in the coming season with cost as compared with last year is given in the following statement:—

Range.	Number of Blocks.	Number of Coupes actually laid out.	Total area of Coupes.	Defined by		Cost.	Average Cost.	
				Cairns.	Stones.		Per Coupe.	Per Acre.
East Thá'na.						Rs. a. p.	Rs. a. p.	Rs. a. p.
Kalyán	16	16	674¾	43	1,042	84 0 6	5 4 0	0 1 11
Bhiwndi	20	20	963¼	23	1,392	82 8 0	4 2 0	0 1 4
Murbád...	20	15	821⅜	46	1,590	86 14 0	5 12 8	0 1 8
Sháhápur	53	49	3,079¼	196	4,443	264 5 0	5 6 0	0 1 4
Khardi								
Mokháda	12	11	665½	46	996	58 4 3	5 4 9	0 1 5
Váda	34	34	1,897	124	3,228	184 11 9	5 6 8	0 1 7
Total ...	155	145	8,101½	478	12,691	760 11 6	5 3 11	0 1 6
West Tha'na.								
Sálsette...	11	11	438	35	860	54 8 6	4 15 6	0 1 11
Bassein	23	23	1,157	20	2,331	116 9 9	5 1 1	0 1 7
Mahim	35	35	1,767¾	112	3,041	163 13 6	4 11 11	0 1 6
Dáhánu...	42	42	2,454¾	216	3,949	191 6 0	4 8 5	0 1 3
Umbargáon	19	19	997¾	65	1,617	89 12 6	4 11 7	0 1 5
Total ...	130	130	6,815¼	448	11,798	616 2 3	5 3 2	0 1 7
Grand Total, 1894-95 ...	285	275	14,916¾	926	24,489	1,376 13 9	5 0 1	0 1 6
Total during 1893-94 ...	284	273	14,380¼	782	22,340	1,227 12 3	4 8 0	0 1 4

II.—WORKING OF THE YEAR.

(*a*).—Communications and Buildings.

28. The expenditure under this head incurred departmentally was Rs. 9,387-0-11 during the year. Details of the work for which this amount was spent are to be found in Form No. 51.

29. The following is a list of works carried out during the year through the agency of the Public Works Department:—

No.	Name of Work.	Amount expended.
	Original Works.	Rs. a. p.
	East Thána.	
1	Providing ceiling and railing to the Range Forest Office at Bhiwndi	83 15 11
2	Additions and alterations to the Forest Depôt-house at Wángni	61 12 6
	West Thána.	
3	Constructing (partially) Forest Depôt-house at Gholwad ...	539 6 1
	Total ...	685 2 6

No.	Name of Work.	Amount expended.
	REPAIRS.	Rs. a. p.
	East Thána.	
1	Repairs to the Forest Office at Kalyán	13 5 7
2	Do. do. at Murbád	15 7 6
3	Do. do. at Khardí	67 14 0
4	Do. do. at Váda	18 0 0
5	Do. do. at Bhiwndi	17 13 2
6	Do. Forest Depôt-house at A'tgaon	11 15 9
7	Do. do. at Kására	11 4 0
8	Do. do. at Vásind	11 15 7
9	Do. do. at Vángni	12 12 9
	West Thána.	
10	Repairs to the Forest Office at Bassein	21 7 7
11	Do. do. at Sálsette (Thána)	14 7 6
12	Do. do. at Máhim	25 10 0
13	Do. Forest Depôt-house at Manor	20 1 2
14	Do. do. at Sávda	12 14 0
15	Do. do. at Pálghar	7 1 2
16	Do. do. at Sanján	10 11 10
17	Do. do. at Wangaon	12 11 0
	Total ...	990 14 1
	Panch Maháls.	
1	Repairs to the Forest Office at Dohad	15 9 0
	Grand Total ...	1,006 7 1

(*b*).—PROTECTION OF FORESTS FROM INJURY.

(1).—*General Protection and Breaches of Forest Law.*

(*a*).—*General Protection.*

30. There has been no change in the scale of Protective Establishment during the year.

31. That the protective establishment is short-handed to deal with the multifarious duties required of them has been repeatedly pointed out, and to enlarge on it further would be useless.

(*b*).—*Breaches of Forest Law.*

32. The following table gives the cases tried by Magistrates during 1893-94 and the present year:—

No.	Division.	1893-94.		1894-95.		Percentage of failures.	
		Prosecutions.	Acquittals.	Prosecutions.	Acquittals.	1893-94.	1894-95.
1	East Thána	152	55	180	65	36·1	36·1
2	West Thána	62	31	49	18	50·	36·7
3	Surat	2	...	12	1	...	8·3
4	Panch Maháls	14	3	54	10	15·4	19·9
	Total ...	230	89	295	94	38·7	31·8

33. Notwithstanding that the number of offences prosecuted has risen nearly 20 per cent., the number of failures has decreased 7 per cent., which is satisfactory, though, as was pointed out last year, in dealing with such small totals too much importance should not be attached to percentages.

34. The nature of the above 389 offences was as follows :—

No.	Division.	Offences relating to the mis-appropriation of			(*d*) Other Offences.	Total.
		(*a*) Timber.	(*b*) Fire-wood.	(*c*) Minor Forest Produce.		
1	East Thána	90	48	18	24	180
2	West Thána	37	11	13	6	67
3	Surat	8	1	...	4	13
4	Panch Maháls	49	3	10	2	64
	Total ...	184	63	41	36	324

35. 1,080 cases were reported as undetected and were classed as follows :—

No.	Division.	Injury to Forests by Fire.		Unauthorized Felling or Appropriation of Wood and Minor Forest Produce.		Grazing without Permission or in Tracts in which Grazing is prohibited.		Other Offences.		Total.	
		1893-94.	1894-95.	1893-94.	1894-95.	1893-94.	1894-95.	1893-94.	1894-95.	1893-94.	1894-95.
1	East Thána ...	234	234	460	419	...	...	...	10	694	663
2	West Thána ...	126	134	119	114	...	...	4	3	249	251
3	Surat	...	59	...	1	...	...	...	...	...	60
4	Panch Mahálś ...	...	75	27	31	...	...	...	...	27	106
	Total ...	360	502	606	565	...	...	4	13	970	1,080

36. In the Thána divisions, where there is still a considerable area of land awaiting settlement, offences are brought to the notice of the Revenue officer, who disposes of them under Section 43, Land Revenue Code. The offences thus disposed of during the year as compared with 1893-94 were as follows :—

Number.	Division.	1893-94.					1894-95.				
		Number of cases.	Value of Forest Produce.	Acquittals.	Convictions.	Amount of Fines.	Number of cases.	Value of Forest Produce.	Acquittals.	Convictions.	Amount of Fines.
			Rs. a. p.			Rs. a. p.		Rs. a. p.			Rs. a. p.
1	East Thána	10	50 3 0	...	10	50 0 0	13	118 14 3	...	13	122 8 6
2	West Thána ...	11	432 8 0	...	11	598 5 0	12	197 13 0	...	12	200 13 0
	Total ...	21	482 11 0	...	21	648 5 6	25	316 11 3	...	25	323 5 6

37. The number of cases prosecuted as compared with that of cases compounded under Section 67 during the year 1893-94 and 1894-95, together with details of the nature of cases compounded during the latter year, are as follows :—

No.	Division.	Taken into Court.		Compounded under Section 67 of the Forest Act.							
					1894-95.						
					Offences relating to the misappropriation of						
		1893-94.	1894-95.	1893-94.	(a) Timber.	(b) Fire-wood.	(c) Minor Forest Produce.	(d) Other offences.	Total.	Amount of Compensation.	
									Rs.	Rs. a. p.	
1	East Thána ...	212	217	87	60	55	15	15	145	1,355 1 9	
2	West Thána ...	84	73	77	71	3	58	3	135	492 15 3	Rs. 267-7-0 remained to be recovered at the close of the year.
3	Surat	2	14	7	7	4	2	1	14	23·13 0	
4	Panch Mahals ...	18	69	157	123	17	7	10	157	219 9 9	
	Total ...	316	373	328	261	79	82	29	451	2,091 7 9	

38. In the following statement the 451 cases compounded during the year are classified according to the amount of compensation accepted in each case as directed in Government Resolution No. 1899, dated 13th March 1891 :—

No.	Division.	Number of Cases in which Compensation was fixed at Rupees.																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	31	44	50	53	101	
1	East Thána ...	88	14	7	6	13	1	1	...	1	3	1	1	2	1	...	...	...	...	...	1	1	...	...	...	...	...	1	1	...	*1	*1	145
2	West Thána ...	64	28	17	6	2	2	1	1	1	...	...	2	1	...	1	...	...	...	1	...	2	3	...	...	...	...	...	...	3	...	...	135
3	Surat	3	2	3	4	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14
4	Panch Mahals ...	101	27	12	7	3	2	1	1	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	157
	Total ...	256	71	39	23	19	5	3	3	2	3	1	3	3	1	1	1	...	1	...	4	4	...	...	1	...	...	1	1	3	1	1	451

* The two cases in which compensation was above the prescribed limit represent several offenders.

39. The information required by Government Resolution No. 1899 of 15th March 1891 is furnished in the following statement :—

No.	Division.	Number of complaints disposed of under Section 67.	Number of cases in which Compensation has been accepted.	Number of Appeals against the proceedings.	Manner in which the appeals have been disposed of.	Remarks.
1	East Thána ...	145	145	...	...	Besides these, in 10 cases offenders were let off with warning.
2	West Thána ...	135	135	...	...	
3	Surat	14	14	...	...	
4	Panch Mahals ...	157	457	...	...	
	Total ...	451	451	...	...	

(b) (2)—Protection from Fire.

40. The results of the year's fire protection as compared with those of 1893-94 are as follows:—

No.	Division.	Forest Area placed under protection against Fire.		Average burned.		Percentage burned.	
		1893-94.	1894-95.	1893-94.	1894-95.	1893-94.	1894-95.
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1	East Thána ...	451,907	440,207	17,700	26,448	3·9	6
2	West Thána ...	247,344	323,021	6,680	3,706	2·7.	1·1
3	Surat	478,237	478,873	443,747	448,614	92·8	93·6
4	Panch Mahals ...	217,530	213,530	17,276	20,311	7·9	9·5
	Total ...	1,391,018	1,455,631	485,403	499,079	34·9	34·2

Thána.

41. In West Thána there has been an immense improvement in the percentage of area burnt over, but in East Thána this percentage is even higher than last year. Although the Divisional Forest Officer claims that the increased area shown as burnt is due to correcter reporting, yet after making all allowances it is clear that there has been no improvement. This question of fire protection is a most grave one in Thána. The "coupe" system, as it is popularly called under which the Thána Forests are being worked, is in most ways a complete success. The people are furnished with ráb-material and a livelihood, and the revenue remains at a high figure; moreover, the coppice shoots from stools felled promise a fair crop for the next revolution, but it cannot be overlooked that there is a great dearth—too often a total absence—of seedlings to replace the present stools when their reproductive power shall be exhausted. There can be no doubt that mainly, if not entirely, this is due to forest fires. The reserves, especially the areas which have come under the axe during the past 10 years, were fire-traced as usual, but in most instances the only use these traces served was to prevent the fire spreading beyond the limits of the reserves. The fact is, fires only very exeptionally enter the forests from outside, they are almost always kindled inside. In East Thána out of 131 fires no less than 123 commenced inside the reserves. These figures are suggestive, but still more so is the fact that the whole of the Tánsa catchment area was burnt from end to end by fires which invariably commenced within it although there is no one living there. The system of reporting each fire by post-card to the Collector as initiated by Mr. Sinclair has been continued with the modification that the post-card is sent to the Assistant Collector of the sub-division instead of to the Collector. All the Assistant Collectors appealed to state that the system is a useful one, but I confess I cannot concur. In the first year possibly the village officers were startled at being asked about fires, but as soon as they realized that that was all, the system, I fear, 'degenerated into' routine, and has become absolutely harmful as giving an idea that something real is being done, whereas it is not so. The Forest Department have done their best and, I think, I may confidently assert that an immense improvement has been effected; but it would seem that we have reached the best possible which is achievable by us under present conditions, and I have no hesitation in saying it is very far short of what must be achieved if the present working-plans are to be anything more than a trap. The vitality of the present stools may last out two or even three revolutions, but unless seedlings are produced to replace them as they fail, the ultimate result must be denudation. The present subordinate establishment is admittedly short-handed and it is possible that an improvement may be obtained by supplementing it by a temporary fire protection establishment. It is proposed to try the experiment this year, but I cannot conscientiously state that I have any confidence in its success. Under existing orders the people under one excuse or another have the right to wander unchallenged where they will and, under these conditions, prevention becomes an impossibility with any establishment that we should be justified in employing. I am aware that

it has been urged that forests are too often fired on purpose as a protest against the curtailment of privileges in them, but I confess I cannot believe this. The larger proportion of fires, I think, are, no doubt, purposely started, but the object is either to destroy the cover for wild animals which springs up and continues for 4 or 5 years after a coupe has been made, or in connection with shikár. I am in hopes of inducing the Collector to withdraw all gun licenses within a certain area round every fire that occurs, and this may have some effect; but I fear that unless Government enforce communal responsibility, no real improvement can be hoped for much beyond the point which we have reached. And even this communal responsibility must be one that really touches all the members of the village. Withdrawing the right of grazing, even if it could be enforced, does not touch the Thákur or Kátkari who fires the forests to drive out a sounder of pig to his Náik who waits for them with his matchlock.

Surat.

42. In the Dángs practically every acre was burnt over, and until forest reserves are placed on a firmer footing, it is absolutely hopeless to fight against this state of affairs which is and has been the normal one in the Dángs for very many years. Until the demarcation has been given full effect to I can hold out little hope of improvement. The executive establishment for some 800 square miles is about 25 men all told. An effort has been made during the last 2 years to protect one or two small areas, of a few thousand acres in all, as an object lesson, by giving turbans to the local Náiks and Patels when fire has been kept out and and has been fairly successful.

43. In Surat proper the forests of the Mándvi Range, which are similar to those in the Dángs, are alone liable to be burnt. These, notwithstanding the figures annually reported, have undoubtedly been almost completely overrun by fire year after year. The areas burnt have been notoriously under-estimated, even last year when special attention was given to this matter the area was only given as 11,000 acres. During the past season Mr. Wallinger gave his special attention to the work of fire protection. The Mándvi forests consist of (1) a large block at the east end of the range, comprising the whole lands of some 12 deserted villages, which is bounded on two sides by Gáikwári territory, and of (2) a number of smaller reserves scattered over the rest of the range. Amongst these smaller reserves at distances of 12 miles or so apart Forest Posts have been built and, at the commencement of the season, a 'Nagára' or large drum was hung up at each of these posts. The arrangement proved most successful. In one case, which came under my observation within half an hour of the beating of the drum, the Divisional Forest Officer, the Assistant Collector, Mr. Wood, I. C. S., and some 40 villagers were at the scene of the fire which was about three miles off, and the fire was got under almost at once. No such system, however, was possible in the large block, which has been annually burnt by fires crossing over the Gáikwári border. Here a fire trace 40 feet wide was cleared of every living thing and was then kept clear of dead leaves, &c., by patrols entertained for the purpose. This trace was 12 miles long and, when I visited it early in March, I found a fire had just reached it from Gáikwári territory but had been successfully stopped. This was evidently the second fire which had traversed the Gáikwári area, the second feeding on the dead leaves which had fallen and the grass and bamboos which had died since the occurrence of the first fire. Unfortunately it is difficult to get labour and it was found impossible to complete the trace along the whole frontier, with the result that though fire after fire was kept back, yet in May three fires got into the reserve over the untraced portion, and these three fires alone are responsible for no less than 10,500 of the total of 16,500 acres burnt over in this Range during the year. The fact is that this reserve, which has been practically unworked for many years, has become so choked with heavy grass that it was impossible to stop a fire which had once got a hold. It is hoped that the system of fire lines for this reserve will be completed this season. Mr. Wallinger is deserving of sympathy for the unfavourable result I am obliged to record, for he worked very hard and it was only I believe the impossibility of completing the system of traces which prevented his being almost completely successful.

44. I cannot pass on without recording my thanks to Mr. Wood, I.C.S., for the hearty moral support and even personal help in extinguishing fires which he gave to Mr. Wallinger.

Panch Maha'ls.

45. The figures in this division show a higher percentage of area burnt over than last year, and Mr. Stewart records that he considers even this area to be under-estimated. The Divisional Forest Officer attributes the poor results of fire protection to want of funds for fire tracing work and the entertainment of special patrols. I think, however, this cannot be the only cause, for barely one-fourth of the sum provided was actually spent. The fact is, the demarcation and settlement of the forests of the division have only lately been completed, and organization only lately taken in hand. The forests are on flat ground, and protection should not be difficult but can only be successful if methodically undertaken. Mr. Wallinger, who has taken charge of the division, will no doubt make a commencement in the coming season. I would note, however, that the support of the Magistrates is necessary for success. During the season two convictions were obtained in which fines of Re. 1 were inflicted by the Magistrate.

(*b*) (*3*).—*Regulation of Grazing and Protection from Cattle.*

46. The following statement gives details of cattle impounded during the year under report :—

No.	Division.	From open Forests.		From closed Forests.		Total.	
		1893-94.	1894-95.	1893-94.	1894-95.	1893-94.	1894-95.
1	East Thána	230	154	2,086	1,922	2,316	2,076
2	West Thána	161	351	1,280	1,750	1,441	2,101
3	Surat	1,070	1,055	1,869	1,359	2,939	2,414
4	Panch Maháls	661	1,111	1,980	2,837	2,641	3,948
	Total ...	2,122	2,671	7,215	7,868	9,337	10,539

It will be seen that the numbers differ but slightly from those of last year.

47. The grazing regulations were in force in the Panch Maháls and Surat (exclusive of the Dángs), but only in certain selected ranges of the 2 Thána divisions. The number of cattle impounded in Thána bears no proportion to the number which were allowed to graze illicitly in coupes, as I can bear witness from the damage which came under my notice during my tour ; but pounds are so far apart and the establishment so short-handed, that no doubt the impounding of trespassing cattle, at all times a difficult task, is shirked.

Fencing.

48. No new fencing was undertaken during the year except in Surat, where the Vejalpor nursery was fenced and some enclosures for stacking bamboos made at the Wághai Depôt in the Dángs. A few necessary repairs were executed in all divisions. The total expenditure amounted to :—

	Rs.	a.	p.
West Thána	152	3	0
East Thána	94	0	0
Surat	707	0	6
Panch Maháls	21	15	4
Total ...	975	2	10

Civil Suits.

49. The appeal to the High Court by the Isáfatdár of A'mgaon, referred to in para. 68 of last year's report, was decided in favour of Government, though not for the full amount claimed, as large deductions were allowed to the Isáfatdár as working expenses and cost of protection.

Criminal Cases.

50. A (substitute) forest guard was convicted with striking a forest offender, who ran away, on the back of the head and causing his death. He was sentenced to rigorous imprisonment for five years.

51. A round guard in Surat division was found guilty of fraud in connection with a free grant of wood, but was acquitted on appeal to the Session Judge. He was, however, dismissed after departmental enquiry.

52. The Forest guards Gorav Bhika and Dewra Sukaria of the Dángs establishment were convicted by the Assistant Political Agent, Khándesh, of taking bribes. They were dismissed and declared ineligible for re-employment under Government in any capacity.

(*c*).--IMPROVEMENT OF FOREST GROWTH.

Natural Reproduction.

53. Natural reproduction is reported by all Divisional Forest Officers as having been fair during the year, but this must be merely taken to mean that it was up to the average and was not interfered with by scanty rainfall, &c. From observations recorded by almost all Divisional Forest Officers, and from my personal observations, I can record that natural reproduction is nothing like what it should be owing to the annual fires. In the Panch Maháls the seed reproduction of teak is normally magnificent. I have never seen anything like it even in Kánara, but the young seedlings are scorched year after year and either killed outright or where they escape are hopelessly ruined. I have seen as many as 3 dead sticks standing up from one stool representing three consecutive annual efforts of the stool to become a tree. In the Dángs Mr. Wallinger reports that seedlings are totally wanting, and from the record of these forests this could only be expected, and Mándvi, as I can testify, is nearly as bad. In both the Thána divisions the coppice reproduction in the coupes is very generally satisfactory, but as I have recorded elsewhere there are but few, if any, seedlings coming on to replace the stools when their vitality shall be exhausted, and again the principal, if not only, cause is fire. Immediately after the rains the coupes are carpeted with seedlings, but all but a very small—an ominously small—proportion are destroyed by fire before April.

(*2*).—*Artificial Reproduction.*

54. Artificial reproduction, so far as regular plantations go, have little place in the Forestry of the Northern Circle.

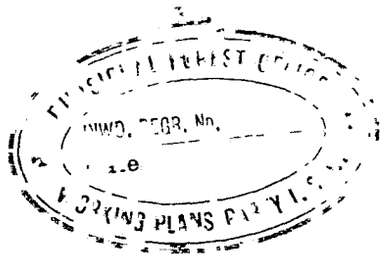
55. In the Thána divisions an attempt was made to assist nature in the coupes by broad-casting and filling in blanks, but the conditions which handicap natural reproduction are still more fatal to these cultural operations.

56. In Surat, Tithál plantation has given fair results and the experiment of planting out Casuarina, from a nursery, on the sea-shore above high water mark is being continued. The Vejalpor nursery was kept up and supplied a large number of transplants of Casuarina and of teak, which latter were planted out in the coupes with fair success, and other small nurseries were started at Wághai, Mándvi, Delwáda and Gandeva.

57. In the Panch Maháls some 125 acres in several places were ploughed and sown with bíbhut. It is too early to brand these attempts as failures, but as usual with these plantations made in the open the seedlings disappeared in the hot weather. An old plantation at Wávdi although wire-fenced and fire-traced was burnt over.

(3).—*Early Thinnings.*

58. No such operations were carried out in this Circle.



AC.) 4

NORTHERN CIRCLE.

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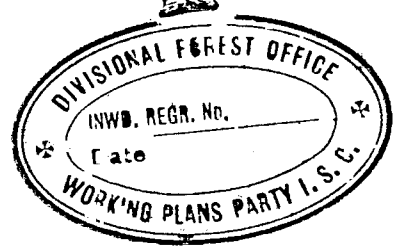
ADMINISTRATION REPORTS

OF THE



FOREST DEPARTMENT

IN THE

BOMBAY PRESIDENCY,

INCLUDING

SIND,

FOR THE YEAR 1894-95.

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From

R. C. WROUGHTON, ESQUIRE,

Deputy Conservator of Forests, Northern Circle;

To

J. MONTEATH, ESQUIRE, I.C.S.,

Secretary to Government, Revenue Department.

Camp Wássind, Thána District,
19th December 1895.

SIR,

I have the honour to submit the Annual Report of Forest Administration in the Northern Circle for 1894-95.

2. I have to apologize for the delay in its submission, but the exchange of Divisional Officers between Surat and the Panch Mahâls just as the year closed, and a good deal of sickness among the members of Divisional Offices, greatly delayed the submission of the Divisional Reports, the last of which was not indeed received until the end of September.

I have the honour to be,

Sir,

Your most obedient Servant,

R. C. WROUGHTON,

Deputy Conservator of Forests, Northern Circle.

B 1319—*a* NC